

Declaration of ecological properties of fibre cement

Declaration framework of the Swiss Society of Engineers and Architects. Up to now, there is no corresponding standard in the EU or in the US.

Created / revised on	06.05.2003	Number of data sheet	DEP 002
Date of printing	06.05.03	Page	1 of 6

Description **FACADE PANELS SWISSPEARL® CARAT**

0. Product identification

01. General information

Product	Facade panels Swisspearl® Carat
Manufacturer	Eternit AG
Declared by	Christian Heierli
Classification as	fibre cement product
Date	31.01.2002

02. Definition of the scope of declaration

021. Coatings and surface treatments (inc. degreasing, pickling, cleaning, priming, coating, etc.)

- none
- as solid constituents of the product
- available as a product variants
- declared in this framework
- declared separately

022. Composite materials such as laminates, base materials, reinforcements

- none
- as solid constituents of the product
- available as a product variants
- declared in this framework
- declared separately

04. Physical characteristics (of hardened and dried product)

- 041 **Apparent density**
1900 kg/m³

- 042 **Mass per unit of surface area**
15.1 to 15.2 kg/m²

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Description	FACADE PANELS SWISSPEARL® CARAT		

1. Manufacture

11. Composition (total of all figures: 100 % mass)

	Primary raw material (% mass)	Recycled material (% mass)	Detailed description
111. renewable primary products			
1.0	1.5	cellulose	
112. Physically treated mineral substances			
8.6	0.0	limestone flour, pigments etc.	
113. Thermally produced mineral substances			
73.8	0.0	cement	
114. Base chemicals			
0.0	0.0		
115. Plastics and similar substances			
3.9	0.0	polyvinyl alcohol etc.	
116. Metals and metal compounds			
0.0	0.0		
117. None classifiable substances			
0.0	0.0		
118. Water			
11.2	0.0	chemically linked	

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Description

FACADE PANELS SWISSPEARL® CARAT

12. Solvent emissions

121. Coatings and surface treatments (inc. degreasing, pickling, cleaning, priming, coating, etc.)

- none
- 6.1 g/m²
- LRV ¹⁾ class 3
- LRV ¹⁾ class 2
- LRV ¹⁾ class 1

Pretreatment: -

Surface treatment: -

122. Gluing of the product

- none
- g/m²
- LRV ¹⁾ class 3
- LRV ¹⁾ class 2
- LRV ¹⁾ class 1

13. Grey energy

131. Availability of transparent calculation principles

- not available
- available from the declaring party on request

132. Cumulative primary energy requirement per unit of mass

MJ/kg (total)
% proportion of renewable energy sources

133. Scope of validity of the figures

- all constituents of the product have been considered
- the following constituents of the product have not been considered:

¹⁾ LRV = Clean Air Ordinance in Switzerland

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Description **FACADE PANELS SWISSPEARL® CARAT**

2. Processing

21. Occupational health risks

212. Proportion of sensitizing agents in untreated starting materials

- none
 0.003 % mass chromate (from cement)

3. Use

31. Constituents of ecological and toxicological relevance

- none
 information not available

Chemical description	Proportion by mass in the product (%)	Poison class according to the Poison Ordinance in Switzerland ¹⁾	Risk phrases according to EU law ²⁾	Dangerous to the ozone layer (R59)
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¹⁾ Substances of poison classes 1 – 4 must be declared

²⁾ The following risk phrases must be declared:

R22 Harmful if swallowed
R25 Toxic if swallowed
R28 Very toxic if swallowed
R33 Danger of cumulative effects
R39 Danger of very serious irreversible effects
R40 Possible risk of irreversible effects
R45 May cause cancer
R46 May cause heritable genetic damage
R47 May cause birth defects
R48 Danger of serious damage to health by prolonged exposure
R50 Very toxic to aquatic organisms
R51 Toxic to aquatic organisms
R52 Harmful to aquatic organisms
R53 May cause long-term adverse effects in the aquatic environment

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Description	FACADE PANELS SWISSPEARL® CARAT		

31. Emittable pollutants

322. Heavy metals from coatings and surface treatments

- none
 information not available

g/m²

4. Disposal

41. Utilization

412. Recycled mineral building materials

- BUWAL ²⁾ guideline satisfied
 BUWAL guideline not satisfied

43. Disposal on landfill sites

431. Landfill type (according to TVA ³⁾)

- not relevant, since combustible
 inert material landfill
 reactor landfill

²⁾ BUWAL = Swiss Federal Office for the Environment, Forestry and Landscape

³⁾ TVA = Industrial Waste Ordinance in Switzerland

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5. Additional information available

51. Remarks

52. Further information about this product can be obtained from:

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Christian Heierli

Address:

Eternit AG, 8867 Niederurnen, Switzerland

Telephone:

+41 55 617 12 17

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Created / revised on	06.05.2003	Number of data sheet	DEP 001
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Description	FACADE PANELS SWISSPEARL® NATURA, TECTURA, XPRESSIV AND REFLEX		

0. Product identification

01. General information

Product	Facade panels Swisspearl® Natura, Tectura, Xpressiv and Reflex
Manufacturer	Eternit AG
Declared by	Christian Heierli
Classification as	fibre cement product
Date	31.01.2002

02. Definition of the scope of declaration

021. Coatings and surface treatments (inc. degreasing, pickling, cleaning, priming, coating, etc.)

- none
- as solid constituents of the product
- available as a product variant
- declared in this framework
- declared separately

022. Composite materials such as laminates, base materials, reinforcements

- none
- as solid constituents of the product
- available as a product variant
- declared in this framework
- declared separately

04. Physical characteristics (of hardened and dried product)

- 041 **Apparent density**
1900 kg/m³
- 042 **Mass per unit of surface area**
15.3 to 15.4 kg/m²

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Created / revised on	06.05.2003	Number of data sheet	DEP 001
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Description	FACADE PANELS SWISSPEARL® NATURA, TECTURA, XPRESSIV AND REFLEX		

1. Manufacture

11. Composition (total of all figures: 100 % mass)

	Primary raw material (% mass)	Recycled material (% mass)	Detailed description
111. Renewable primary products			
1.0	1.5	Cellulose	
112. Physically treated mineral substances			
3.7	0.0	Limestone flour, etc.	
113. Thermally produced mineral substances			
78.6	0.0	Cement	
114. Base chemicals			
0.0	0.0		
115. Plastic and similar substances			
3.7	0.0	Polyvinyl alcohol, etc.	
116. Metals and metal compounds			
0.0	0.0		
117. None classifiable substances			
0.0	0.0		
118. Water			
11.5	0.0	chemically linked	

12. Solvent emission

121. Coatings and surface treatments (inc. degreasing, pickling, cleaning, priming, coating, etc.)

- none
- 6.1 g/m²
- LRV ¹⁾ class 3
- LRV ¹⁾ class 2
- LRV ¹⁾ class 1

Pretreatment: -
Surface treatment: -

¹⁾ LRV = Clean Air Ordinance in Switzerland

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Created / revised on	06.05.2003	Number of data sheet	DEP 001
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Description	FACADE PANELS SWISSPEARL® NATURA, TECTURA, XPRESSIV AND REFLEX		

122. Gluing of the product

- none
- 6.1 g/m²
- LRV ¹⁾ class 3
- LRV ¹⁾ class 2
- LRV ¹⁾ class 1

13. Grey energy

131. Availability of transparent calculation principles

- not available
- available from the declaring party on request

132. Cumulative primary energy requirement per unit of mass

8.3 MJ/kg (total)
30 % proportion of renewable energy sources

133. Scope of validity of the figures

- all constituents of the product have been considered
- the following constituents of the product have not been considered

2. Processing

21 Occupational health risks

212. Proportion of sensitising agents in untreated starting materials

- none
- 0.03 % mass chromate (from cement)

¹⁾ LRV = Clean Air Ordinance in Switzerland

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Description	FACADE PANELS SWISSPEARL® NATURA, TECTURA, XPRESSIV AND REFLEX		

3. Use

31 Constituents of ecological and toxicological relevance

- none
 information not available

Chemical description	Proportion by mass in the product (%)	Poison class according to the Poison Ordinance in Switzerland ¹⁾	Risk phrases according to EU law ²⁾	Dangerous to the ozone layer (R59)
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¹⁾ Substances of Poison class 1 – 4 must be declared

²⁾ The following risk phrases must be declared

R22	Harmful if swallowed
R25	Toxic if swallowed
R28	Very toxic if swallowed
R33	Danger of cumulative effects
R39	Danger of very serious irreversible effects
R40	Possible risk of irreversible effects
R45	May cause cancer
R46	May cause heritable genetic damage
R47	May cause birth defects
R48	Danger of serious damage to health by prolonged exposure
R50	Very toxic to aquatic organism
R51	Toxic to aquatic organism
R52	Harmful to aquatic organism
R53	May cause long-term adverse effects in the aquatic environment

32 Emittable pollutants

322. Heavy metals from coatings and surface treatments

- none
 Information not available
 as follow

0.2 g/m² chrome, cobalt, nickel, zinc

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4. Disposal

41 Utilization

412. Recycled mineral building materials

- BUWAL ²⁾ guideline satisfied
 BUWAL ²⁾ guideline not satisfied

43 Disposal on landfill sites

431. Landfill type (according to TVA ³⁾)

- not relevant, since combustible
 Inert material landfill
 Reactor landfill

5. Additional information available

51 Remarks

52 Further information about this product can be obtain from:

Name
Christian Heierli

Address
Eternit AG, CH-8867 Niederurnen, Switzerland

Telephone
+41 55 617 12 17

²⁾ BUWAL = Swiss Federal Office for the Environment, Forestry and Landscape

³⁾ TVA = Industrial Waste Ordinance in Switzerland